

## TITLE OF INVENTION

### MECHANICALLY ROTATABLE WIRELESS RF DATA TRANSMISSION SUBSCRIBER STATION WITH MULTI-BEAM ANTENNA

## ABSTRACT

A wireless RF data transmission system subscriber station has a fixed, overhead bracket secured, spindle. An open sided housing is rotatably mounted to the spindle. The housing has a finned heat sink and is interiorly coated with heat absorbing paint. Emissions shielding enclosures secured within the housing house an RF transceiver. An antenna array mounted to an enclosure is operatively connected to the transceiver through the enclosures for communicating RF data signals. An A/D-D/A board is mounted to an enclosure on an opposite side from the array. A radome is secured over a face of the array, sealed to the housing by a carbon impregnated gasket. An electric motor mounted within the housing and operatively engaging the spindle is controlled by antenna aiming logic for aiming the station and its array. An orifice sealed with a waterproof, breathable membrane allows moisture to escape the housing and prevents moisture infiltration.